1. (Twice amended) A method for simultaneous screening for one or more gene insertion mutants in a population of any organism comprising:

preparing an insertion element mutant library comprising a plurality of nucleic acid insertion elements and insertion element flanking sequences, said insertion element flanking sequences originating from a defined population of an organism wherein said gene insertion mutants are to be detected;

amplifying said insertion element flanking sequences from said insertion element mutant library using at least one primer derived from a sequence of a nucleic acid insertion element of said plurality of nucleic acid insertion elements; and

fixing a set of nucleic acid amplification products representing said insertion element flanking sequences derived from said insertion element mutant library to a solid support as target for hybridization.

2. (Twice amended) The method according to claim 1 wherein the set of nucleic acid amplification products representing said insertion element flanking sequences are obtained by iPCR using at least one primer or a set of primers based on a sequence of at least one nucleic acid insertion element.

4. (Twice amended) The method according to claim 3 further comprising reamplifying said at least one amplifyable genomic fragment using at least one primer based on a sequence of [an]a nucleic acid insertion element of said plurality of nucleic acid insertion elements.

16. (Amended) The kit according to claim 14 wherein the set of amplified insertion flanking sequences is present in a state selected from a group consisting of a soluble state and a dried state.

18. (Amended) A method for simultaneous screening for one or more gene insertion mutants in a cell line comprising:

preparing an insertion element mutant library comprising a plurality of nucleic acid insertion elements and insertion element flanking sequences, said insertion element flanking

sequences originating from a cell line wherein said gene insertion mutants are to be detected;

amplifying said insertion element flanking sequences from said insertion element mutant library using at least one primer derived from a sequence of a nucleic acid insertion element of said plurality of nucleic acid insertion elements; and

fixing a set of nucleic acid amplification products representing said insertion element flanking sequences derived from said insertion element mutant library to a solid support as target for hybridization.

19. (Amended) A method for simultaneous screening for one or more gene insertion mutants in a population of any organism comprising:

preparing an insertion element mutant library comprising a plurality of nucleic acid insertion elements and insertion element flanking sequences, said insertion element flanking sequences originating from a defined population of an organism wherein said gene insertion mutants are to be detected;

amplifying said insertion element flanking sequences from said insertion element mutant library using at least one primer derived from a sequence of a nucleic acid insertion element of said plurality of nucleic acid insertion elements; and

producing a set of labelled amplification products representing said insertion element flanking sequences derived from said insertion element mutant library to use as probes to hybridize to a solid support to which one or more nucleic acids have been fixed as target(s) for hybridisation.

20. (Amended) The method according to claim 2 wherein said iPCR comprises:

digesting nucleic acid sequences of said insertion element mutant library with at least one restriction enzyme which optionally recognizes motifs of four nucleotides in genomic DNA, resulting in a collection of amplifyable genomic fragments;

ligating at least one amplifyable genomic fragment by self ligation; and

amplifying said at least one amplifyable genomic fragment using a primer based on a terminal part of an insertion element.